

is not motorized and yet is controllable by the input of electrical signals. For example, the system can be used with television, in which a state can include being set to receive a particular channel or to produce a certain volume of sound. As other examples, the system can also be used with stereo equipment and other electronics. Accordingly, it is intended that the ongoing description is illustrative only, not limiting, and that the true spirit and scope of the present invention will be determined by the appended claims.

I claim:

1. A system for controlling a motorized wheelchair by vocal sounds from an operator, wherein the motorized wheelchair can be in any one of a plurality of states, including states of movement and non-movement of the motorized wheelchair, comprising:

control means responsive to electrical signals to change the state of the motorized wheelchair from any one of the plurality of states to another, wherein each of the electrical signals corresponds to a change of state;
means for converting vocal sounds into a plurality of said electrical signals;
means for transmitting said vocal sounds from the operator to said converting means, a seat, and means for tilting the seat relative to a support surface for the wheelchair,
wherein said system has a plurality of modes, said converting means in at least one of said modes of said system being capable of converting fewer than all of the plurality of vocal sounds into said electrical signals, whereby the motorized wheelchair can be changed to another one of said plurality of states, but not to any other one of said plurality of states, when said converting means is in said at least one mode, and
wherein the system has a mode in which said converting means converts vocal sounds into electrical signals for tilting the seat.

2. The system of claim 1, wherein said converting means, in several of said modes, converts fewer than all of said vocal sounds into electrical signals, the vocal sounds converted when said converting means is in a first of said several modes comprising a first set, and the vocal sounds converted when said converting means is in a second of said several modes comprising a second set, wherein said first set is different from said second set.

3. The system of claim 1, further comprising means for indicating visually the mode of operation of the system.

4. The system of claim 1, wherein the system has a first condition in which the means for converting vocal sounds into the plurality of electrical signals and a second condition in which the means for converting vocal sounds does not convert vocal sounds into any of the plurality of electrical signals, the system being switchable between the first and second conditions by other vocal sounds.

5. The system of claim 1, wherein the system has a mode in which the system is responsive to a vocal sound to move the wheelchair from a first predetermined position to a second predetermined position.

6. The system of claim 1, further comprising means for emitting an audible alarm in response to failure of the system to recognize a vocal sound from the operator.

7. The system of claim 6, wherein said means for emitting an audible alarm comprises an earpiece to be worn by the operator.

8. The system of claim 1, wherein said means for converting vocal sounds comprises means for converting a plurality of different sounds into the same electrical signal,

whereby either of a primary command and a backup command is executed by the system.

9. The system of claim 1, wherein one of said vocal sounds is a vocal sound likely to be uttered by the operator in a state of panic. 5

10. A system for controlling power driven equipment by a vocal sound from an operator, wherein the equipment can be in any one of a plurality of states, comprising:

control means responsive to at least one electrical signal to change the state of the power driven equipment; 10

means for converting a vocal sound into said at least one electrical signal; and

means for transmitting said vocal sound from the operator to said converting means while preventing transmission to said converting means of sounds similar to said vocal sound, said transmitting means comprising a microphone engaging the larynx region of the operator. 15

11. The system of claim 10, wherein the system is a system for controlling power driven equipment by a plurality of vocal sounds from the operator, the control means comprises control means responsive to a plurality of electrical signals, and the system has a plurality of modes, said converting means in at least one of said modes of said system being capable of converting fewer than all of the vocal sounds into said electrical signals, whereby the equipment can be changed from one of said plurality of states to another one of said plurality of states, but not to any other one of said plurality of states, when said converting means is in said at least one mode. 20

12. The system of claim 11, wherein said converting means, in several of said modes, converts fewer than all of said vocal sounds into electrical signals, the vocal sounds converted when said converting means is in a first of said several modes comprising a first set, and the vocal sounds converted when said converting means is in a second of said several modes comprising a second set, wherein said first set is different from said second set. 25

13. The system of claim 10, wherein said equipment is a motorized wheelchair, and the states of the equipment include states of movement and non-movement of the motorized wheelchair. 40

14. The system of claim 11, further comprising means for indicating visually the mode of operation [6f] of the system.

15. The system of claim 10, wherein the system is a system for controlling power driven equipment by a plural-

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ity of vocal sounds, the control means comprises control means responsive to a plurality of electrical signals, and the system has a first condition in which the means for converting vocal sounds into the plurality of electrical signals and a second condition in which the means for converting vocal sounds does not convert vocal sounds into any of the plurality of electrical signals, the system being switchable between the first and second conditions by other vocal sounds.

16. The system of claim 10, wherein the system has a mode in which the system is responsive to a vocal sound to move the power driven equipment from a first predetermined position to a second predetermined position.

17. The system of claim 10, further comprising means for emitting an audible alarm in response to failure of the system to recognize a vocal sound from the operator.

18. The system of claim 10, wherein said means for converting a vocal sound comprises means for converting a plurality of different sounds into the same electrical signal, whereby either of a primary command and a backup command is executed by the system.

19. The system of claim 10, wherein said equipment is a motorized wheelchair, the wheelchair comprises a seat and means for tilting the seat relative to a support surface for the wheelchair, and

wherein said system has a plurality of modes, said converting means in at least one of said modes of said system being capable of converting fewer than all of the plurality of vocal sounds into said electrical signals, whereby the motorized wheelchair can be changed to another one of said plurality of states, but not to any other one of said plurality of states, when said converting means is in said at least one mode, and

wherein the system has a mode in which said converting means converts vocal sounds into electrical signals for tilting the seat.

20. The system of claim 10, wherein the system is a system for controlling power driven equipment by a plurality of vocal sounds from the operator, and one of said vocal sounds is a vocal sound likely to be uttered by the operator in a state of panic.

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